

Amendment of the Claims

This listing of the claims will replace all prior versions and listing of claims in the application.

Listing of Claims

1. (Currently Amended) A process for the combustive destruction of noxious substances in a gas stream which comprises injecting the gas stream in to a heated chamber 3 with sufficient oxygen to allow substantially complete combustion therein wherein the chamber is at a temperature of less than 1000°C and, wherein hydrogen is also present in the chamber as a fuel gas.
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled).
6. (Cancelled)
7. (Cancelled)
8. (Cancelled).
9. (Cancelled)

10. (Currently Amended) The process according to claim 1 in which oxygen is present in an amount of the mixture has a 10 to 150% stoichiometric excess of oxygen over the fuel gas.
11. (Currently Amended) The process according to claim 10 in which oxygen is present in an amount of the mixture has an 80 to 150% stoichiometric excess of oxygen over the fuel gas.
12. (Currently Amended) The process according to claim 11 in which the hydrogen is present in at least the stoichiometric amount by volume in respect of the noxious substance species being combusted.
13. (Currently Amended) The process according to claim 12 in which the hydrogen is present in at least twice the stoichiometric amount by volume in respect of the noxious substance species being combusted.
14. (Currently Amended) The process according to claim 12 in which the hydrogen is present in at least five times the stoichiometric amount by volume in respect of the noxious substance species being combusted.
15. (Currently Amended) The process according to claim 13 in which the hydrogen is present in at least five times the stoichiometric amount by volume in respect of the noxious substance species being combusted.
16. (Original) The process according to claim 1 in which the chamber comprises a heated metal tube.

17. (Original) The process according to claim 16 in which the chamber is heated by electrical means.

18. (Original) The process according to claim 17 in which the hydrogen and the oxygen 2 are introduced into the gas stream prior to the stream being injected in to the chamber.

19. (Currently Amended) The process according to claim 18 in which oxygen is present in an amount of the mixture has a 10 to 150% stoichiometric excess of oxygen over the fuel gas.

20. (Currently Amended) The process according to claim 19 in which oxygen is present in an amount of the mixture has an 80 to 150% stoichiometric excess of oxygen over the fuel gas.

21. (Currently Amended) The process according to claim 20 in which the hydrogen is present in at least the stoichiometric amount by volume in respect of the noxious substance species being combusted.

22. (Currently Amended) The process according to claim 21 in which the hydrogen is present in at least twice the stoichiometric amount by volume in respect of the noxious substance species being combusted.

23. (Currently Amended) The process according to claim 21 in which the hydrogen is present in at least five times the stoichiometric amount by volume in respect of the noxious substance species being combusted.

24. (Currently Amended) The process according to claim 22 in which the hydrogen is present in at least five times the stoichiometric amount by volume in respect of the noxious substance ~~species~~ being combusted.
25. (Original) The process according to claim 1 in which the chamber is heated by electrical means.
26. (Original) The process according to claim 25 in which the hydrogen and the oxygen are introduced into the gas stream prior to the stream being injected in to the chamber.
27. (Currently Amended) The process according to claim 26 in which oxygen is present in an amount of the mixture has a 10 to 150% stoichiometric excess of oxygen over the fuel gas.
28. (Currently Amended) The process according to claim 27 in which oxygen is present in an amount of the mixture has an 80 to 150% stoichiometric excess of oxygen over the fuel gas.
29. (Currently Amended) The process according to claim 28 in which the hydrogen is present in at least the stoichiometric amount by volume in respect of the noxious substance ~~species~~ being combusted.
30. (Currently Amended) The process according to claim 29 in which the hydrogen is present in at least twice the stoichiometric amount by volume in respect of the noxious substance ~~species~~ being combusted.

31. (Currently Amended) The process according to claim 29 in which the hydrogen is present in at least five times the stoichiometric amount by volume in respect of the noxious substance ~~species~~ being combusted.

32. (Currently Amended) The process according to claim 30 in which the hydrogen is present in at least five times the stoichiometric amount by volume in respect of the noxious substance ~~species~~ being combusted.

33. (New) The process according to claim 1 wherein the chamber is at a temperature of up to 750°C.